

From: [Hayter, Earl J ERDC-RDE-EL-MS](#)
To: [Miller, Garyg](#)
Subject: RE: Advocates Detail Opposition To EPA's Novel Dioxin Cleanup Proposal - Tittabawassee
Date: Thursday, November 13, 2014 8:00:13 AM

Thanks Gary!

> -----Original Message-----
> From: Miller, Garyg [<mailto:Miller.Garyg@epa.gov>]
> Sent: Thursday, November 13, 2014 8:57 AM
> To: Hayter, Earl J ERDC-RDE-EL-MS; Schroeder, Paul R ERDC-RDE-EL-MS
> Cc: Turner, Philip; Sanchez, Carlos
> Subject: FW: Advocates Detail Opposition To EPA's Novel Dioxin Cleanup
> Proposal - Tittabawassee
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> FYI; article below relates to the RBA factor that the PRPs proposed for
> San Jacinto (0.5) which they got/justified from the Michigan sites
> discussed in this article. EPA HQs position is that the RBA should be
> 1.0 (default) unless there is site-specific data to support a different
> number - there is no site data on RBA for San Jacinto. Using an RBA of
> 1.0 for San Jacinto instead of 0.5 would reduce the sediment PRG from
> 220 to 110 ppt.
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> Regards,
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> Gary Miller
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> EPA Remedial Project Manager
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> 214-665-8318
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> miller.garyg@epa.gov
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> From: Turner, Philip
> Sent: Wednesday, November 12, 2014 12:42 PM
> Subject: Advocates Detail Opposition To EPA's Novel Dioxin Cleanup
> Proposal - Tittabawassee
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> Advocates Detail Opposition To EPA's Novel Dioxin Cleanup Proposal
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> Posted: November 11, 2014
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> Environmentalists are reiterating their opposition to EPA's proposed
> plan for cleaning up dioxin from a Michigan river floodplain, arguing in
> comments to EPA that the site-specific plan's novel cleanup standards
> are based on faulty assumptions, fail to consider cumulative exposures
> and are inadequate to protect human health and the environment.
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> The proposed cleanup goals "are much too high to be protective" and fail
> to "take into account the already high dioxin body-burden in" area
> residents, the Lone Tree Council, a Michigan environmental group, says
> in recent comments
> <http://insideepa.com/sites/insideepa.com/files/documents/nov2014/epa2014_2085.pdf> .
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> In comments prepared by the consulting firm Environmental Stewardship
> Concepts, LLC, Lone Tree Council argues EPA's Aug. 12 proposed plan for
> cleaning up the Tittabawassee River Floodplain inappropriately focuses
> on non-cancer rather than cancer health risks. The group also protests
> the limited information that is the basis for the plan, with particular
> concern to its inclusion of research from the site's responsible party,
> Dow Chemical Company.
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> EPA, which is working with the Michigan Department of Environmental
> Quality (DEQ) on cleaning up the overall Saginaw-Tittabawassee River and
> Bay site, took comment on the proposed plan for cleaning up contaminated
> floodplain soil through Oct. 14. The floodplain cleanup is being closely
> watched by environmental groups who say EPA's handling of the site could
> set a precedent for how the agency implements its non-cancer risk
> estimate for dioxin, crafted in the agency's 2012 Integrated Risk
> Information System (IRIS) assessment.
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> Dioxin is a category of persistent and accumulative compounds
> inadvertently created through industrial incineration processes and also
> through the burning of trash and forest fires. It was a primary
> ingredient in the herbicide Agent Orange used during the Vietnam War.
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> Environmentalists have long urged EPA to strengthen dioxin cleanup
> requirements and generally praised a 50 parts per trillion (ppt) limit
> EPA floated following the agency's February 2012 IRIS non-cancer risk
> assessment of 2,3,7,8-tetrachlorodibenzo-p-dioxin, the most toxic form
> of the compound. That limit was significantly more stringent than the
> 1,000 ppt limit EPA set in 1998.
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> The IRIS assessment set an oral reference dose (RfD) -- or amount below
> which EPA expects no adverse health effects if ingested daily for a
> lifetime -- of 0.7 picograms per kilogram bodyweight per day (pg/kg-
> day). The 2012 IRIS assessment of dioxin's non-cancer risks was part of
> a reassessment of dioxin's health risks that agency staff has been
> working on for decades, though IRIS has yet to complete the cancer
> portion of that assessment.
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> Cleanup Plan
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> The proposed cleanup plan <<http://insideepa.com/node/172682>> for the
> Tittabawassee River floodplain soil also relies on the 2012 non-cancer
> RfD. But EPA and DEQ also considered studies of how contamination is
> absorbed into the bloodstream and tissues after a person is exposed in
> their efforts to derive site-specific non-cancer risk values. The
> agencies' August document on the site-specific standards also notes
> other factors that may limit exposures, including that dioxin levels
> vary widely in the river floodplain and cold weather often limits
> exposures to contaminated soil because the ground is frozen and people
> spend less time outside.
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> After EPA announced the proposal this summer, environmentalists told
> Inside EPA the plan's proposed cleanup standards of 250 ppt in
> residential areas and 2,000 ppt in other land areas, such as farms,
> parks, commercial properties and a wildlife refuge, showed EPA floating
> significantly weaker cleanup standards than the 50 ppt standard the
> agency estimated in 2012 and which industry groups have claimed is
> flawed and overly stringent.
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> The proposed cleanup goals are based on protecting against non-cancer
> risks because EPA has not yet issued the cancer values for dioxin. But
> in the document supporting the proposed cleanup, EPA says the site-
> specific cleanup levels based on the 2012 non-cancer RfD are expected to
> be protective of cancer risks. The agency also says that development of
> cancer risk information "will take some additional time, and no
> projected completion date is available."
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> Dow, the site's responsible party, declined a request seeking the
> company's comments on the floodplain soil cleanup, referring the request
> to EPA. A spokesman for EPA's Region 5 also declined the request for
> public comments submitted to the agency, but said the Region would
> provide a "responsiveness summary" when it is completed.
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> In a statement to Inside EPA, the Dow spokesman said, "we remain
> committed to resolution of this issue and will continue working
> collaboratively with the EPA, DEQ and the community."
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> Insufficient Evidence
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> In the Oct. 10 comments, Lone Tree Council argues there is insufficient
> evidence to merit deviating from a long-standing conservative default
> oral soil bioavailability factor -- or relative bioavailability (RBA) of
> 1, which assumes 100 percent of dioxins present in contaminated soil
> could interact with an animal or human that ingested the soil, causing
> harm.
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> EPA's August document on calculating the site-specific standards shows
> EPA set an RBA of 0.43 for use with EPA's 2012 non-cancer RfD, and that
> the agencies considered a Dow study of RBA of dioxin in soil in crafting
> the site-specific standards.
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> But the Lone Tree Council says "the assumptions regarding the relative
> bioavailability are not appropriate and at least one is illogical to the
> point of being arbitrary and not based on any empirical data."
> Additionally, the group says that the few studies EPA cites to support
> use of a weaker bioavailability factor in setting cleanup goals is based
> on inconclusive studies that "have small sample sizes, and are largely
> funded by Dow, for which there is an obvious conflict of interest."
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> Lone Tree Council also says agency risk assessors should have considered
> risks from inhalation exposures, and that the agencies' proposal
> includes no discussion of ambient levels of dioxin, despite years of
> releases in the area. Additionally, the advocates urge EPA to strengthen
> its assessment of oral risks to account for bioaccumulation in plants
> and animals, including livestock.
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> The group says, "A high number of uncertainties exist within the risk
> assessment process at this site, and thus, the most conservative default
> assumptions should be used." -- Dave Reynolds
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